

IN THE CLAIMS:

Claims 1, 13, 25, 30, 35, 40, 45, and 50 have been amended and new claims 55-62 have been added. All pending claims are produced below.

1. (Currently Amended) A method for an IPv6 enabled comprising:
transmitting a query identifying the IPv6 enabled node to a Domain Name System server;
receiving, from the Domain Name System server, a list comprising at least one name of an IPv6 connect agent determined by the Domain Name System server based on an identifier of the IPv6 enabled node included in the query, the IPv6 connect agent connecting the IPv6 enabled node to a network containing IPv4 components, and the IPv6 connect agent being different from the Domain Name System server;
transmitting a name of a desired IPv6 connect agent to the Domain Name System server, the name of the desired IPv6 connect agent being selected from the list;
receiving an address of the desired IPv6 connect agent from the Domain Name System server; and
engaging in IPv6 communication across the network using the address.
2. (Cancelled).
3. (Cancelled).
4. (Cancelled).
5. (Cancelled).
6. (Previously Presented) The method of claim 1, wherein the desired IPv6 connect agent is one closest to the IPv6 enabled node.
7. (Cancelled).

8. (Previously Presented) The method of claim 1, wherein the desired IPv6 connect agent is one whose name is first received from the Domain Name System server.
9. (Cancelled).
10. (Previously Presented) The method of claim 1, wherein the identifier comprises an Internet Protocol address.
11. (Previously Presented) The method of claim 1, wherein the identifier comprises a Media Access Control address.
12. (Previously Presented) The method of claim 1, wherein the identifier comprises a character string.
13. (Currently Amended) A method for a Domain Name System server comprising:
 - receiving a query identifying an IPv6 enabled node from the IPv6 enabled node;
 - determining at least one IPv6 connect agent based on an identifier of the IPv6 enabled node included in the query, the IPv6 connect agent connecting the IPv6 enabled node to a network containing IPv4 components, and the IPv6 connect agent being different from the Domain Name System server;
 - transmitting a list comprising at least one name of the IPv6 connect agent determined to the IPv6 enabled node;
 - receiving a name of a desired IPv6 connect agent from the IPv6 enabled node, the name of the desired IPv6 connect agent being selected from the list by the IPv6 enabled node; and
 - transmitting an address of the desired IPv6 connect agent to the IPv6 enabled node.
14. (Cancelled).
15. (Cancelled).

16. (Cancelled).
17. (Cancelled).
18. (Cancelled).
19. (Cancelled).
20. (Previously Presented) The method of claim 13, further comprising:
searching a record corresponding to the name of the desired IPv6 connect agent from
a lookup table; and
finding the address of the desired IPv6 connect agent from the record.
21. (Previously Presented) The method of claim 20, wherein the record is a Naming
Authority Pointer Domain Name System resource record.
22. (Previously Presented) The method of claim 13, wherein the identifier comprises an
Internet Protocol address.
23. (Previously Presented) The method of claim 13, wherein the identifier comprises a
Media Access Control address.
24. (Previously Presented) The method of claim 13, wherein the identifier comprises a
character string.
25. (Currently Amended) An IPv6 enabled node comprising:
a software portion that transmits a query identifying the IPv6 enabled node to a
Domain Name System server;
a software portion that receives, from the Domain Name System server, a list
comprising at least one name of an IPv6 connect agent determined by the Domain Name
System server based on an identifier of the IPv6 enabled node included in the query, the IPv6

connect agent connecting the IPv6 enabled node to a network containing IPv4 components, and the IPv6 connect agent being different from the Domain Name System server;

a software portion that transmits a name of a desired IPv6 connect agent to the Domain Name System server, the name of the desired IPv6 connect agent being selected from the list;

a software portion that receives an address of the desired IPv6 connect agent from the Domain Name System server; and

a software portion that engages in IPv6 communication across the network using the address.

26. (Cancelled).

27. (Cancelled).

28. (Cancelled).

29. (Cancelled).

30. (Currently Amended) A Domain Name System server device comprising:

a software portion that receives a query identifying an IPv6 enabled node from the IPv6 enabled node;

a software portion that determines at least one IPv6 connect agent based on an identifier of the IPv6 enabled node included in the query, the IPv6 connect agent connecting the IPv6 enabled node to a network containing IPv4 components, and the IPv6 connect agent being different from the Domain Name System server;

a software portion that transmits a list comprising at least one name of the IPv6 connect agent determined to the IPv6 enabled node;

a software portion that receives a name of a desired IPv6 connect agent from the IPv6 enabled node, the name of the desired IPv6 connect agent being selected from the list by the IPv6 enabled node; and

a software portion that transmits an address of the desired IPv6 connect agent to the IPv6 enabled node.

31. (Cancelled).

32. (Cancelled).

33. (Cancelled).

34. (Previously Presented) The Domain Name System server device of claim 30, further comprising:

a software portion that searches a record corresponding to the name of the desired IPv6 connect agent from a lookup table; and

a software portion that finds the address of the desired IPv6 connect agent from the record.

35. (Currently Amended) ~~A computer readable storage containing a program for an IPv6 enabled, the program making a computer execute:~~ A computer program product for an IPv6 enabled node, the computer program product comprising a non-transitory computer-readable storage medium containing computer program code for:

transmitting a query identifying the IPv6 enabled node to a Domain Name System server;

receiving, from the Domain Name System server, a list comprising at least one name of an IPv6 connect agent determined by the Domain Name System server based on an identifier of the IPv6 enabled node included in the query, the IPv6 connect agent connecting the IPv6 enabled node to a network containing IPv4 components, and the IPv6 connect agent being different from the Domain Name System server;

transmitting a name of a desired IPv6 connect agent to the Domain Name System server, the name of the desired IPv6 connect agent being selected from the list by the IPv6 enabled node;

receiving an address of the desired IPv6 connect agent from the Domain Name System server; and
engaging in IPv6 communication across the network using the address.

36. (Cancelled).

37. (Cancelled).

38. (Cancelled).

39. (Cancelled).

40. (Currently Amended) ~~A computer readable storage containing a program for a Domain Name System server, the program making a computer execute:~~ A computer program product for a Domain Name System server, the computer program product comprising a non-transitory computer-readable storage medium containing computer program code for:

receiving a query identifying an IPv6 enabled node from the IPv6 enabled node;
determining at least one IPv6 connect agent based on an identifier of the IPv6 enabled node included in the query, the IPv6 connect agent connecting the IPv6 enabled node to a network containing IPv4 components, and the IPv6 connect agent being different from the Domain Name System server;

transmitting a list comprising at least one name of the IPv6 connect agent determined to the IPv6 enabled node;

receiving a name of a desired IPv6 connect agent from the IPv6 enabled node, the name of the desired IPv6 connect agent being selected from the list by the IPv6 enabled node; and

transmitting an address of the desired IPv6 connect agent to the IPv6 enabled node.

41. (Cancelled).

42. (Cancelled).

43. (Cancelled).

44. (Previously Presented) The non-statutory computer readable storage medium of claim 40, ~~the program making the computer further execute~~ further containing computer program code for:

searching a record corresponding to the name of the desired IPv6 connect agent from
a lookup table; and

finding the address of the desired IPv6 connect agent from the record.

45. (Currently Amended) An IPv6 enabled node comprising:

means for transmitting a query identifying the IPv6 enabled node to a Domain Name System server;

means for receiving, from the Domain Name System server, a list comprising at least one name of an IPv6 connect agent determined by the Domain Name System server based on an identifier of the IPv6 enabled node included in the query, the IPv6 connect agent connecting the IPv6 enabled node to a network containing IPv4 components, and the IPv6 connect agent being different from the Domain Name System server;

means for transmitting a name of a desired IPv6 connect agent to the Domain Name System server, the name of the desired IPv6 connect agent being selected from the list;

means for receiving an address of the desired IPv6 connect agent from the Domain Name System server; and

means for engaging in IPv6 communication across the network using the address.

46. (Cancelled).

47. (Cancelled).

48. (Cancelled).

49. (Cancelled).

50. (Currently Amended) A Domain Name System server device comprising:
means for receiving a query identifying an IPv6 enabled node from the IPv6 enabled node;
means for determining at least one IPv6 connect agent based on an identifier of the IPv6 enabled node included in the query;
means for transmitting a list comprising at least one_name of the IPv6 connect agent determined to the IPv6 enabled node, the IPv6 connect agent connecting the IPv6 enabled node to a network containing IPv4 components, and the IPv6 connect agent being different from the Domain Name System server;
means for receiving a name of a desired IPv6 connect agent from the IPv6 enabled node, the name of the desired IPv6 connect agent being selected from the list by the IPv6 enabled node; and
means for transmitting an address of the desired IPv6 connect agent to the IPv6 enabled node.

51. (Cancelled).

52. (Cancelled).

53. (Cancelled).

54. (Previously Presented) The Domain Name System server device of claim 50, further comprising:

means for searching a record corresponding to the name of the desired IPv6 connect agent from a lookup table; and

means for finding the address of the desired IPv6 connect agent from the record.

55. (New) The method according to claim 1, wherein the IPv6 enabled node is disconnected from every IPv6 connect agent from transmitting the query to receiving the address.

56. (New) The method according to claim 13, wherein the IPv6 enabled node is disconnected from every IPv6 connect agent from receiving the query to transmitting the address.

57. (New) The method according to claim 25, wherein the IPv6 enabled node is disconnected from every IPv6 connect agent from when the query is transmitted to when the address is received.

58. (New) The method according to claim 30, wherein the IPv6 enabled node is disconnected from every IPv6 connect agent from when the query is transmitted to when the address is received.

59. (New) The method according to claim 35, wherein the IPv6 enabled node is disconnected from every IPv6 connect agent from transmitting the query to receiving the address.

60. (New) The method according to claim 40, wherein the IPv6 enabled node is disconnected from every IPv6 connect agent from receiving the query to transmitting the address.

61. (New) The method according to claim 45, wherein the IPv6 enabled node is disconnected from every IPv6 connect agent from when the query is transmitted to when the address is received.

62. (New) The method according to claim 50, wherein the IPv6 enabled node is disconnected from every IPv6 connect agent from when the query is transmitted to when the address is received.